

## Work Order ID 60893

Monday, July 26, 2010 1:55:36 PM



Item ID: D3650-041

Accept

Setup Start

Stop

Revision ID:

Item Name: Tunnel Top Panel Assembly

Start Date: 7/26/2010 Start Qty: 1.00

Required Date: 8/2/2010 Req'd Qty: 1.00

Cust Item ID:

Customer:

Run Start

Stop

Reference:

Approvals:

Process Plan: *H*Date: *10-7-26*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3650	Rev C								
100	Pick Kit	0.00							
		0.00							
Packaging	Memo								
Packaging									
110	Small Fab	0.00							
		0.00							
Small Fab	Memo								
Small Fab	1-Assemble as per dwg D3650□2- Seal all mating surfaces and all gaps using Proseal 700 fire wall sealant□as per dwg D3650□Batch: <i>1112362</i>								
	QC5- Inspect part completeness to step on W/O	0.00							
120		0.00							
QC	Memo								
Quality Control									

*9/5/08/04 @**9/5/08/08 @**80 10/08/03 ①*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval- QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 60893

Monday, July 26, 2010 1:55:36 PM

Page 2

Item ID: D3650-041

Revision ID:

Item Name: Tunnel Top Panel Assembly

Start Date: 7/26/2010 Start Qty: 1.00

Required Date: 8/2/2010 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code
130 Packaging Packaging	Identify as per dwg & Stock Location: <u>GA</u> <u>B60424</u> Memo	0.00 0.00	<u>80</u>	<u>10/08/03</u>	
140 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00			

Accept Qty Reject Qty Reject Number Insp. Stamp

①

10/08/04 MF  
MF 10-8-04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval- QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, July 26, 2010 1:55:40 PM

Page 1

Work Order ID: 60893

Parent Item: D3650-041

Parent Item Name: Tunnel Top Panel Assembly





Start Date: 7/26/2010


Start Qty: 1.00


Required Date: 8/2/2010


Required Qty: 1.00


Comments: IPP Rev:A New Issue 07-11-12 EC verified by: DD  
 IPP Rev:B Ecn 1113P 08-01-22 DD verified by:EC  
 IPP Rev:C Ecn1162 08-04-02 DD verified by:EC


Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960C10	NAS1149C0363	Purchased	No			100	Each	0.0000	8	8			
* 	R	LP M113524	(8x)										
WASHER													
AN3C3A		Purchased	No			110	Each	342.0000	8	8			
													
Bolt													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST350			342						
				111916			4						
				113359			138						
				115159			200						
D3650-1		Manufactured	No			110	Each	1.0000	1	1			
													
Aft Panel													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST189			1						
				47871			1						
D3650-3		Manufactured	No			110	Each	9.0000	1	1			
													
Center Panel													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST189			9						
				53842			9						

 EP 5/10/08/04

 EP 5/10/08/04

 EP 5/10/08/04

 EP 5/10/08/04

 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval- QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 2

Monday, July 26, 2010 1:55:40 PM

Work Order ID: 60893



Parent Item: D3650-041



Parent Item Name: Tunnel Top Panel Assembly

Start Date: 7/26/2010

Required Date: 8/2/2010

Start Qty: 1.00

Required Qty: 1.00

D3650-5

Manufactured No

110

Each

3.0000

1



Fwd Panel



*Handwritten signature and date: 7/26/08/04*

Location

Loc Qty

Loc Code

ST189

3

47872

3

Monday, July 26, 2010 1:55:40 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

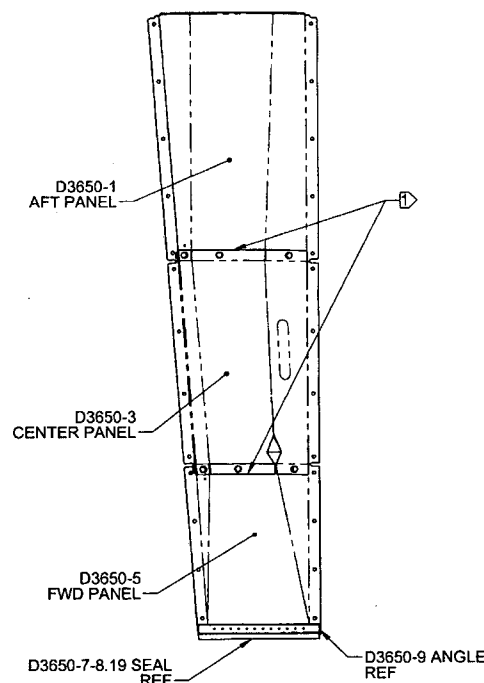
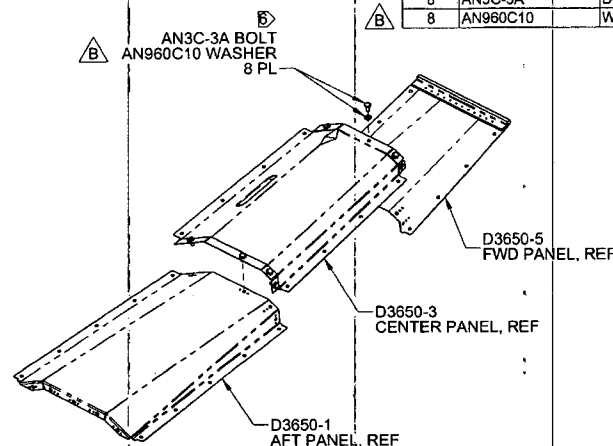
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1

QTY -041	PART NUMBER	DESCRIPTION
X	D3650-041	TUNNEL TOP PANEL ASSEMBLY
1	D3650-1	AFT PANEL
1	D3650-3	CENTER PANEL
1	D3650-5	FWD PANEL
8	AN3C-3A	BOLT
8	AN960C10	WASHER



# **D3650-041 TUNNEL TOP PANEL ASSEMBLY**

## **NOTES:**

- 1) SEAL ALL MATING SURFACES AND ALL GAPS USING PROSEAL 700 FIRE WALL SEALANT
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) UNITS: INCHES UNLESS OTHERWISE NOTED
- 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 5) IDENTIFICATION: NONE
- 6) TORQUE FASTENERS 15 TO 25 in-lb
- 7) WEIGHT: 3.3 lbs

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 60893

DA 10-8-24

DEO ATTACHED

UNDER REVIEW

OK 07.05.14  
PAR 09.00.08

RELEASE  
08.11.17

C	REFORMATTED TO NEW STANDARDS; RELOCATED PART LIST (ZN D2-2); ADDED SECTION VIEW J-J & REVISE DIMENSIONS (ZN B7-5, C4-5); ADDED RECESS LOCATION & REVISED DIMENSIONS (ZN C6-6, D5-6); MS20815-4M5 WAS CR3523-4-03 & NAS1149CN432R WAS AN960C4 (ZN D5-7, B5-7, B8-7)	RF	08.10.14
B	SHEETS 1, 2 & 7: UPDATED FASTENER QUANTITIES; UPDATED VIEWS SHEETS 3 & 8: REMOVED/RELOCATED HOLES; UPDATED VIEWS SHEET 4: 1.8 WAS 1.5; 1.0 WAS 0.8; UPDATED VIEW; ADDED NOTE 8 SHEET 5: REMOVED NOTE IN C6 & ASSOCIATED DIMS; UPDATED VIEWS SHEET 6: REMOVED/RELOCATED HOLES & ADDED CUTOUT TO D3650-3F; MOVED D3650-11/-11F TO SHEET 9; ADDED DETAIL 1 SHEET 9: RELOCATED D3650-11/-11F FROM SHEET 6; UPDATED DIMS OF D3650-11/-11F	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.10.14		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3650</b> REV. C SHEET 1 OF 9 TITLE <b>TOP PANEL ASSEMBLY</b> SCALE 1:8 COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

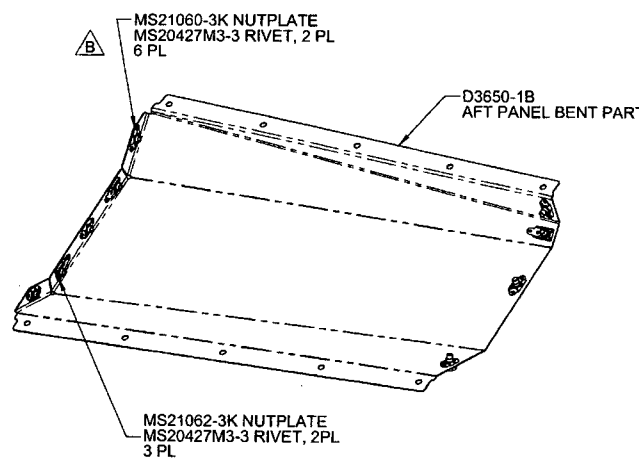
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

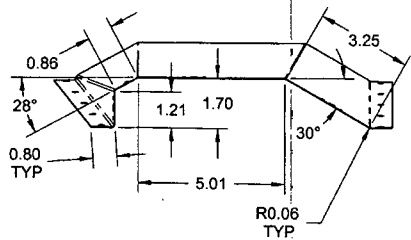
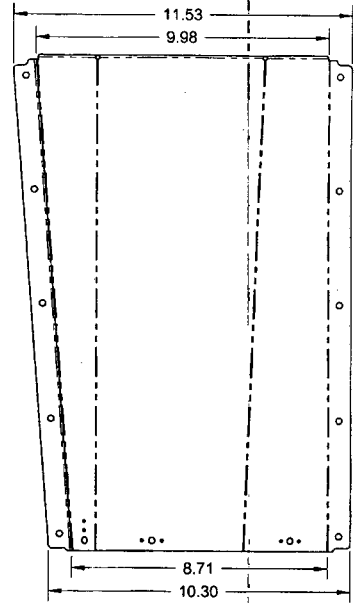
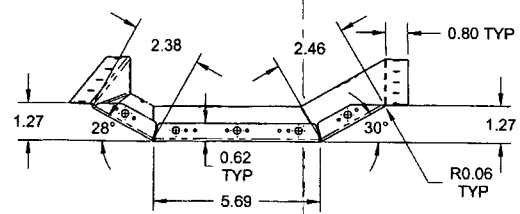
**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1

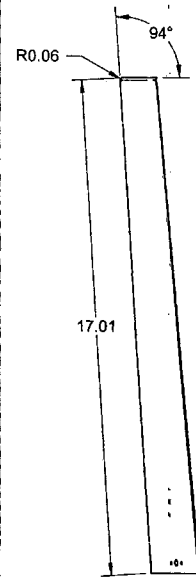
D  
C  
B  
A



**D3650-1 AFT PANEL**



QTY	PART NUMBER	DESCRIPTION
-1		
X	D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUT PLATE



DEO ATTACHED

UNDER REVIEW

RELEASED

**D3650-1B AFT PANEL BENT PART**  
(MAKE FROM D3650-1F FLAT PATTERN)

- NOTES:
- 1) FINISH: NONE
  - 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 3) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 5) IDENTIFICATION: NONE
  - 6) WEIGHT: 1.3 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3650</b> TITLE <b>TOP PANEL ASSEMBLY</b> REV. C SHEET 2 OF 9 SCALE NTS COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>
DRAWN	RF	
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	08.10.14	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

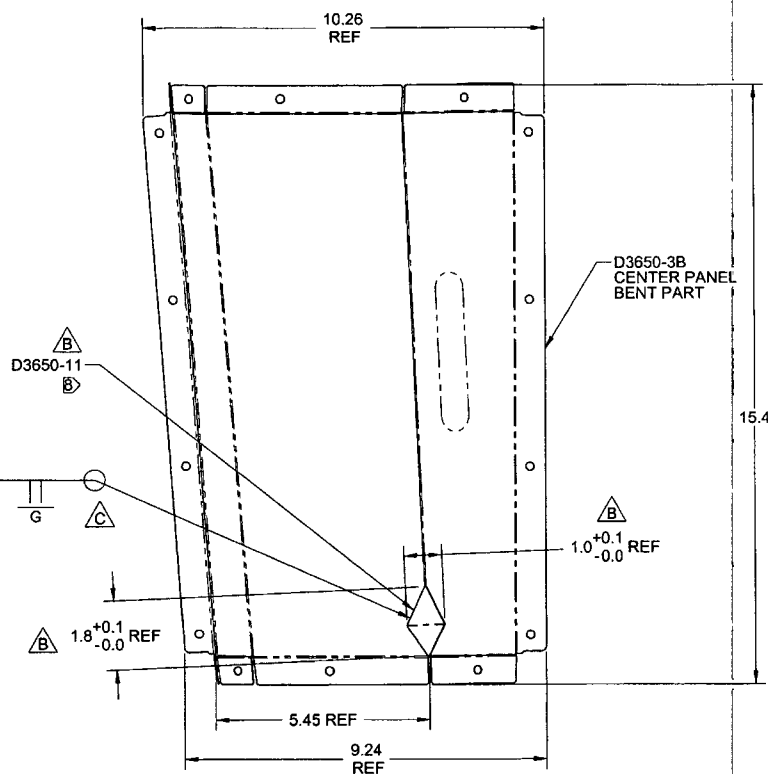
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

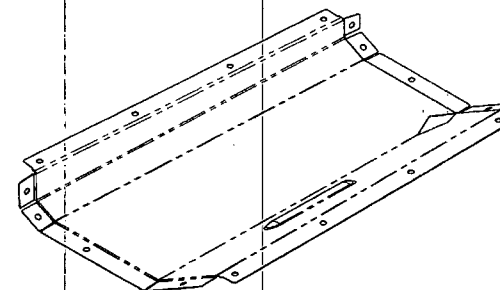
**NOTE:** Date & initial all entries

QTY	PART NUMBER	DESCRIPTION
-3		
X	D3650-3	CENTER PANEL
1	D3650-3B	CENTER PANEL BENT PART
1	D3650-11	FILLER PLATE

IT IS ACCEPTABLE  
TO GRIND & LEAVE  
0.03 FROM BOTTOM  
FLAT SURFACE



**D3650-3 CENTER PANEL**  
(LOOKING FROM OUT SIDE SURFACE)



*w/c 605893*

DEO ATTACHED

RELEASED  
*08.11.17*

**NOTES:**

- 1) WELD PER QSI 004
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.0 lb
- 8) TRIM D3650-11 TO FIT AS REQUIRED

**UNDER REVIEW**

*08.02.05*  
*CP 06.06.24*

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. <b>D3650</b>	REV. C
MFG. APPR.	<i>[Signature]</i>	SHEET 4 OF 8	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>TOP PANEL ASSEMBLY</b>	
DATE	08.10.14	NTS	

COPYRIGHT © 2007 BY DART AEROSPACE LTD  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS  
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT  
WRITTEN PERMISSION FROM DART AEROSPACE LTD.

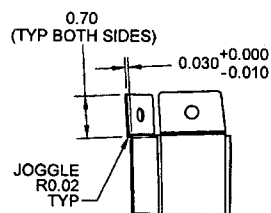
W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

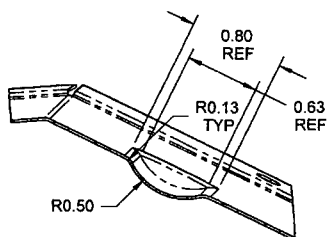
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

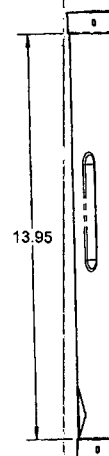
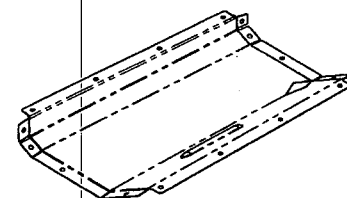
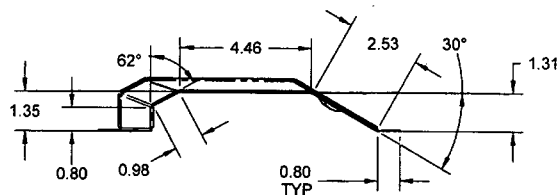
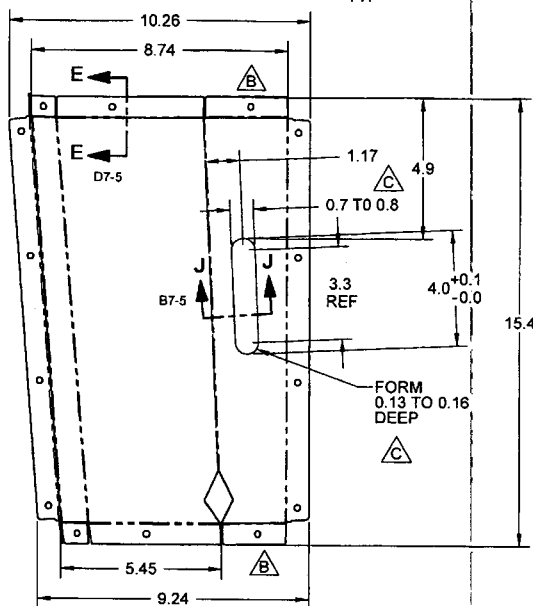
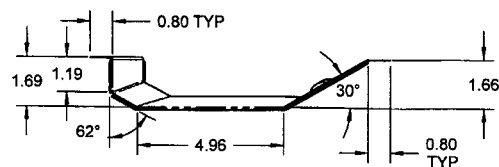
**NOTE:** Date & initial all entries



**SECTION E-E** D5-5  
SCALE 2X



**SECTION J-J** C5-5  
SCALE 3.5X



w/o 40893

DEO ATTACHED

RELEASED

- NOTES:  
1) FINISH: NONE  
2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
3) UNITS: INCHES UNLESS OTHERWISE NOTED  
4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
5) IDENTIFICATION: NONE

**D3650-3B CENTER PANEL BENT PART**  
(MAKE FROM D3650-3F FLAT PATTERN)

UNDER REVIEW

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 5 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR CHANGED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

**NOTE:** Date & initial all entries

MS21062-3K NUTPLATE  
MS20427M3-3 RIVET, 2 PL  
2 PL

MS21060-3K NUTPLATE  
MS20427M3-3 RIVET, 2 PL  
2 PL

NAS1149CN432R  
WASHER, REF  
0.07  
D3650-7-8.19 SEAL  
D3650-9 ANGLE

DETAIL F  
SCALE 3.5X

D3650-5B FWD PANEL  
BENT PART  
REF

MS20615-4M5  
RIVET, REF

D3650-5B  
FWD PANEL  
BENT PART  
REF

F  
D5-7

D3650-9 REF

D3650-5B  
FWD PANEL  
BENT PART

D3650-7-8.19  
REF

CENTRE D3650-7/-9 ON D3650-5B &  
TRANSFER  $\phi 0.129$  (#30 DRILL) HOLES  
FROM D3650-9 TO D3650-7 & D3650-5B  
AS SHOWN  
INSTALL  
MS20615-4M5 RIVET  
NAS1149CN432R WASHER  
12 PL

D3650-5 FWD PANEL

0.80  
TYP  
1.35 0.84  
R0.06  
TYP  
30°  
28°  
4.46  
1.05  
1.31

9.20  
8.35

11.70

DEO ATTACHED

D3650-5B FWD PANEL BENT PART  
(MAKE FROM D3650-5F FLAT PATTERN)

RELEASED  
08/10/14

# PART LIST

QTY	PART NUMBER	DESCRIPTION
X	D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

## NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.8 lbs

UNDER REVIEW

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. C
MFG. APPR.		D3650 SHEET 7 OF 9
APPROVED		TITLE SCALE
DE APPR.		TOP PANEL ASSEMBLY NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

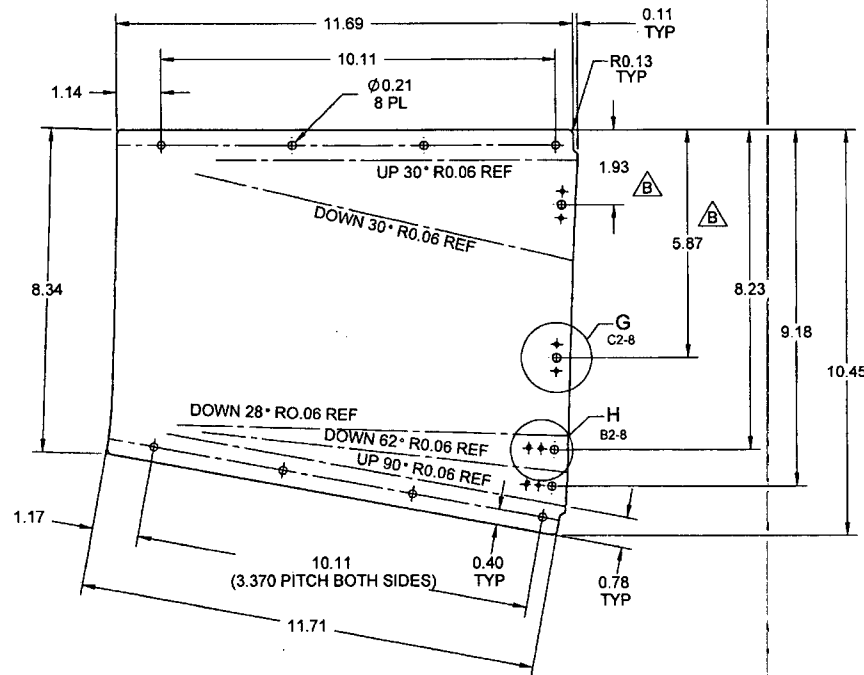
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

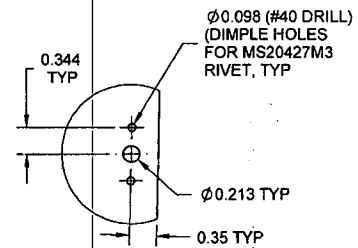
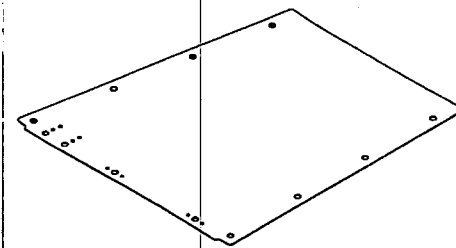


**D3650-5F FLAT PATTERN**

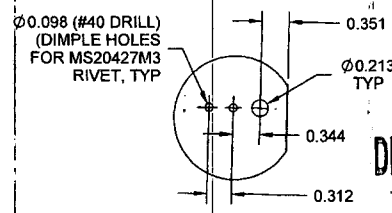
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.6 lb

**UNDER REVIEW**  
OK 4/29/14



**DETAIL G**  
2 PL  
SCALE 1.5X



**DETAIL H**  
12 PL  
SCALE 1.5X

**DEO ATTACHED**

**RELEASED**  
08/11/17

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	B	DRAWING NO. <b>D3650</b>	REV. C
MFG. APPR.		TITLE <b>TOP PANEL ASSEMBLY</b>	SHEET 8 OF 9
APPROVED		SCALE	NTS
DE APPR.		COPYRIGHT © 2007 BY DART AEROSPACE LTD	
DATE <b>08.10.14</b>		THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS LOANED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

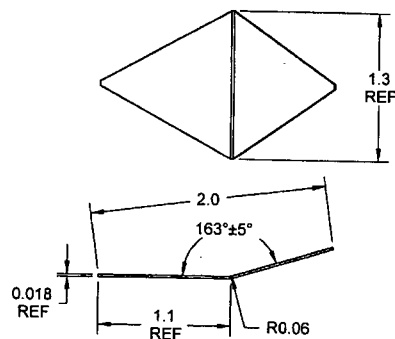
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

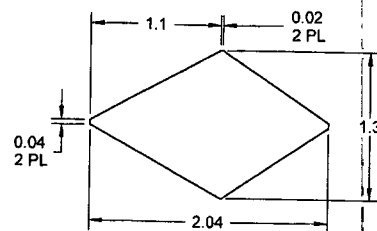
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

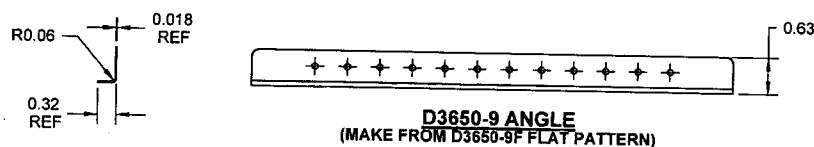
**NOTE:** Date & initial all entries



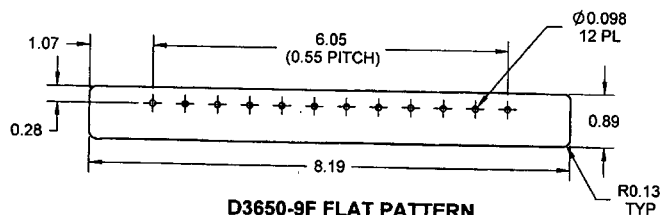
**D3650-11 FILLER PLATE**  
(MAKE FROM D3650-11F FLAT PATTERN)



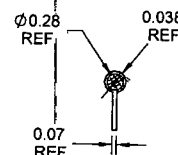
**D3650-11F FLAT PATTERN**



**D3650-9 ANGLE**  
(MAKE FROM D3650-9F FLAT PATTERN)



**D3650-9F FLAT PATTERN**



**D3650-7-8.19 SEAL**

**D3650-7-8.19 NOTES:**

- 1) MATERIAL: P/N 8168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)  
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb
- 8) PART NUMBER: D3650-7-X.XX  
WHERE X.XX = LENGTH IN INCHES  
EG. 12.50" LONG = D3650-7-12.50

**D3650-9 & D3650-11 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET,  
PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) D3650-9 WEIGHT: 0.05 lb  
D3650-11 WEIGHT: 0.007 lb

**UNDER REVIEW**

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. <b>D3650</b>	REV. C
MFG. APPR.		TITLE	SHEET 9 OF 9
APPROVED		<b>TOP PANEL ASSEMBLY</b>	SCALE
DE APPR.			NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

*who 60893*

**DEO ATTACHED**

**RELEASED**  
*08/11/17*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DRAWING NO. D3650	TITLE TOP PANEL ASSEMBLY	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3650-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN CP	CHECKED	MFG. APPR. <i>EC</i>	APPROVED <i>MD</i>	DE APPR. <i>MD</i>			
DATE 09.06.12	DATE 04.06.15	DATE 09.06.15	DATE 09/06/15	DATE 09/06/15			

**TO AMEND D3650-5 FWD PANEL:**

REF PAR 09-008. THE QTY(12) NAS1149CN432R WASHERS ARE REPLACED WITH QTY(1) D3893-1 DOUBLER. THE QTY(12) MS20615-4M5 RIVETS ARE REPLACED WITH QTY(12) NAS9307M-4-03 RIVETS. LOCATION OF THE DOUBLER IS SHOWN IN THE AMENDED DETAIL F (DWG SHEET 7) BELOW. THE PARTS LIST FOR D3650-5 IS AMENDED AS FOLLOWS:

**IS:**

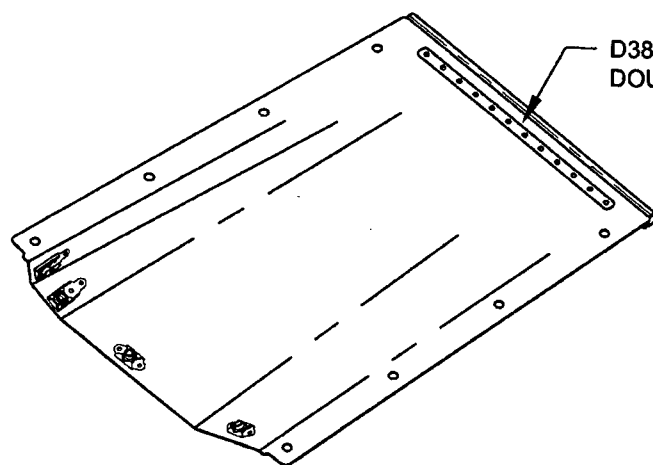
QTY	PART NUMBER	DESCRIPTION
-5		
1	D3893-1	DOUBLER
12	NAS9307M-4-03	RIVET (OR CR3523-4-03)

**WAS:**

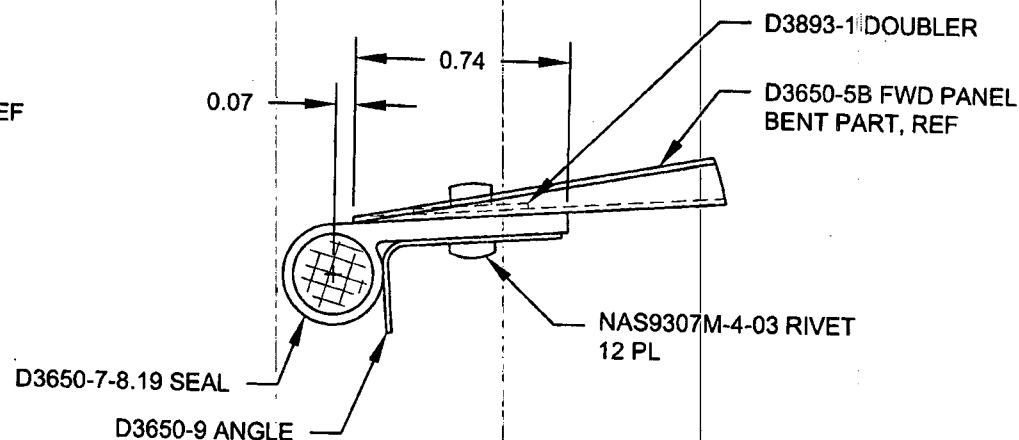
QTY	PART NUMBER	DESCRIPTION
-5		
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET

**RELEASED**  
09/06/15

*WLO 60893*



**D3650-5 FWD PANEL**



**DETAIL F** C5-7  
SCALE 3.5X

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries